

**REMARKS**

Claims 1, 3 and 5-21 are pending in this application.

Claims 1 and 19 have been amended to recite a step of desalting an additive containing a halogen ion by electrodialysis using an ion exchange membrane to form a desalted additive, and that the desalted additive is used in the emulsion polymerization step. Support for this amendment can be found on page 26, lines 21-23.

Claim 19 has been further amended to recite "a step of forming the emulsion into a layer on a side of a support, said emulsion layer being an image forming layer, to form the heat-developable image recording material". Support for this step can be found in claim 1.

Claims 20-21 have been amended to clearly further limit the subject matter of claims 1 and 19, respectively.

No new matter has been added by way of the above-amendment.

The following sections correspond to the sections of the outstanding Office Action.

**Issues under 35 U.S.C. §112, First Paragraph**

Claims 1, 3 and 5-21 are rejected under 35 U.S.C §112 first paragraph for containing "new matter". Applicants respectfully traverse the rejection.

The Examiner alleges that the emulsion forming step introduces new matter into the claims. The emulsion forming step is as follows:

a step of forming the emulsion into a layer on a side of the support, said emulsion layer being an image forming layer, to form the heat-developable image recording material.

Specifically, the Examiner does not find that the specification describes that the polymer latex binder can be used in the image forming layer.

In response, the Examiner's attention is directed to page 131, lines 15-18 which reads as follows:

The specific polymer latex described above may be used in any layer described above and is preferably added to a layer containing the organic silver salt and the silver halide (image forming layer).

Accordingly, there is clear support in the specification for use of the polymer latex binder in the image-forming layer. Since the inventors were in possession of the presently claimed invention at the instant priority date, withdrawal of the new matter rejection is respectfully requested.

**Issues under 35 U.S.C. §112, Second Paragraph**

Claims 19-21 are rejected under 35 U.S.C. §112 second paragraph for being indefinite. Applicants respectfully traverse the rejection.

The Examiner objects to the fact that claim 19 does not provide a step of forming the heat developable material. In response, Applicants have amended claim 19 to recite the following step, which appears in claim 1:

a step of forming the emulsion into a layer on a side of a support, said emulsion layer being an image forming layer, to form the heat-developable image recording material.

In view of the fact that there are now sufficient steps of preparing a heat-developable image recording material, the claims satisfy the requirements of 35 USC 112, second paragraph. As such, withdrawal of the rejection is respectfully requested.

**Prior Art Based Issues**

In sections 7-8 of the outstanding Office Action, the Examiner rejects the claims as follows:

- A) Claims 1, 3, 5-6 and 18-21 are rejected under 35 U.S.C §102 (b) as anticipated by or, in the alternative, under 35 U.S.C §103(a) as obvious over EP0911,691 (EP'691); and
- B) Claims 7-18 are rejected under 35 U.S.C. §103 (a) as being unpatentable over EP'691 and further in view of Kato (US Patent No. 6,174,663), Harring et al (US Patent No. 5,637,449) and EP0803764 (EP'764).

Applicants respectfully traverse each of the rejections.

In the previous Office Actions, the Examiner has included EP'691 as the base reference in the rejections. The Examiner has relied upon EP'691 for teaching the emulsion polymerization of a polymer latex with a halogen ion content of not more than 500 ppm wherein the polymer latex is not subjected to purification through a desalting step. However, Applicants have consistently argued that: 1) the instant claims are drawn to a process and not a product so that the process steps should be given patentable weight; and 2) the "desalting" step which is excluded from claim 1 refers to purification with a dialysis membrane and purification with an ion exchange resin as are used in EP' 691, see for example the paragraph bridging pages 11-12 of the March 15, 2004 Amendment. However, the Examiner does not seem to equate the "desalting step" which is excluded from the process of claim 1 with the purification step using a dialysis membrane or ion exchange resin as described in EP'691.

Accordingly, Applicants have clarified this matter by amending independent claims 1 and 19 to recite that the method comprises the use of a polymer latex which has not been subjected to

purification using an *ion exchange resin* or a *dialysis membrane*. Applicants believe that this amendment directly addresses the Examiner's basis for maintaining the rejections.

In addition, Applicants have further amended claims 1 and 19 to recite a step of desalting an additive containing a halogen ion by electrodialysis using an ion exchange membrane to form a desalted additive and a step of emulsion polymerizing one or more monomers in the presence of the desalted additive to form the polymer latex. This step of desalting the additive helps to keep the halogen ion content of the polymer latex low and it obviates the deleterious effects of purifying the polymer latex with the ion exchange resin or a dialysis membrane as is required in the process of EP '691.

Applicants respectfully submit that patentability of the present invention lies in the fact that EP '691 fails to teach or fairly suggest a polymer latex having a low halogen content which has not been purified with an ion exchange resin or a dialysis membrane. In fact, EP '691 only teaches purification with an ion exchange resin or a separation membrane and does not teach alternative means for purification as equivalents to these methods, see line 25 of page 3 of EP '691.

It is clear from the disclosure of the specification, that desalting of the polymer latex using an ion exchange resin or dialysis membrane results in an aggregation of the polymer latex due to dramatic changes in salt strength at the time of purification or concentration, and as a result, **the coating property is adversely affected**. See page 26, first paragraph of the specification. In EP '691, the commercial polymer latex (LACSTAR 3307B) is subjected to purification using a dialysis membrane or ion exchange membrane. Accordingly, there is a reduction in ion conductivity and halogen ion conductivity resulting in improved image

preservability, however, there is a negative effect on the coating property. This adverse effect is not seen in the inventive process which does not purify the polymer latex with an ion exchange resin or a dialysis membrane. In the inventive process, the polymer latex is aided in having reduced halogen ion content by using a desalted additive such as a polymerization emulsifier. Thus, the inventive process allows for reduced halogen ion content, and still maintains the ion conductivity. Therefore, the inventive process enables improvement in both the image preservability and the coating properties, in addition to the density in the white background portion of the image being inhibited.

In view of the foregoing comments, Applicants respectfully submit that the present process is not *prima facie* obvious over EP'691 either taken alone or in combination with Kato, Haring et al and EP0803764. As such, withdrawal of the rejections is requested.

**EP1096310 (EP'310)**

Claims 1, 3 and 5-21 are rejected under 35 U.S.C §102 (a) as being anticipated by or in the alternative, under the 35 U.S.C. §103 (a) as being obvious over EP'310. Applicants respectfully traverse the rejection.

Applicants note that this reference is only available as of its publication date of May 2, 2001, which falls after the filing date of the instant priority document 2001-022421 filed in Japan on January 30, 2001. Accordingly, enclosed herewith is a verified English translation of the instant priority document JP 2001-022421.

In view of the fact that there is sufficient support for the presently claimed invention under 35 USC 112, first paragraph in JP 2001-022421, withdrawal of the rejection is respectfully requested.

**Conclusion**

In view of the above-amendments and comments, Applicants respectfully submit that the claims are in condition for allowance. A Notice to such effect is earnestly solicited.


Applicants respectfully request entry of this amendment into the official record, since it reduces the number of issues and does not place an undue burden on the Examiner for further consideration and/or search. Furthermore, there are sufficient reasons why this amendment to the claims was not previously made.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) respectfully petition(s) for a three (3) month extension of time for filing a reply in connection with the present application, and the required fee of \$1020.00 is attached hereto.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact **Garth M. Dahlen, Ph.D., Esq.**, (Reg. No. 43,575) at the telephone number of the undersigned below.

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Respectfully submitted,

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Enclosed: Verified English translation of the instant priority document JP 2001-022421